

EQIP IRRIGATION PRACTICES

Estimated Water Conserved

(Acre Inches Per Acre)

Applicant No.:

Applicant:

Date:

Practice:

Predominant Soil Texture:

Crop(s) *

ETc (in.) **

Total Annual ETc (in.) = 0.0 in**Estimated Amount of Water Applied BEFORE Practice:**

$$W_b = \frac{ET_c}{E_b/100} = \frac{\text{ } / 100}{\text{ }} = 0.00$$

Estimated Amount of Water Applied AFTER Practice:

$$W_a = \frac{ET_c}{E_a/100} = \frac{\text{ } / 100}{\text{ }} = \underline{\underline{0.00}}$$

Estimated Annual Water Savings:

$$W_b - W_a = \underline{\underline{0.00}} \text{ ac-in/ac}$$

EXAMPLE: Replace an unlined ditch with a pipeline in a furrow irrigation system. The soil is a loam and the annual ETc is 31 in.

ETc = 31 in
 Efficiency BEFORE = Eb = 71%
 Efficiency AFTER = Ea = 78%

Estimated water applied BEFORE = $W_b = ET_c / (E_b / 100) = 31 / 0.71 = 43.7$
 Estimated water applied AFTER = $W_a = ET_c / (E_a / 100) = 31 / 0.78 = 39.7$
 Estimated water savings = $W_b - W_a = 43.7 - 39.7 = 4.0 \text{ ac-in/ac}$

SUGGESTED BEFORE (Eb) AND AFTER (Ea) SYSTEM EFFICIENCIES ***

PROPOSED IRRIGATION METHOD Proposed Cost-Shared Practice	Predominant Soil Texture													
	s		ls		sl		fsl		l		sil		cl	
	Eb	Ea	Eb	Ea	Eb	Ea	Eb	Ea	Eb	Ea	Eb	Ea	Eb	Ea
SURFACE IRRIGATION														
Replace unlined ditch with pipeline/lining	45%	60%	52%	65%	59%	70%	67%	74%	71%	78%	73%	78%	75%	78%
SURFACE IRRIGATION														
Replace a leaky pipeline with a pipeline	50%	60%	55%	65%	61%	70%	68%	74%	72%	78%	74%	78%	76%	78%
SURFACE IRRIGATION														
Improve DU (Split runs, higher Q, etc.)	43%	60%	48%	65%	54%	70%	56%	74%	64%	78%	64%	78%	64%	78%
SURFACE IRRIGATION														
Install a tailwater recovery system	53%	60%	56%	65%	58%	70%	60%	74%	61%	78%	61%	78%	62%	78%
SURFACE IRRIGATION														
Landleveling (previously leveled)	54%	60%	59%	65%	63%	70%	67%	74%	70%	78%	70%	78%	70%	78%
SURFACE IRRIGATION														
Landleveling (previously unleveled)	48%	60%	52%	65%	56%	70%	59%	74%	62%	78%	62%	78%	62%	78%
SPRINKLER IRR. (Hand Move/Side Roll)														
Replace surface irrigation	43%	73%	48%	73%	54%	73%	56%	73%	61%	73%	61%	73%	62%	73%
SPRINKLER IRR. (Solid Set, Undertree)														
Replace surface irrigation	43%	80%	48%	80%	54%	80%	56%	80%	61%	80%	61%	80%	62%	80%
SPRINKLER IRR. (Solid Set, Undertree)														
Replace hand move sprinkler	73%	80%	73%	80%	73%	80%	73%	80%	73%	80%	73%	80%	73%	80%
TRICKLE IRRIGATION														
Replace surface irrigation	43%	85%	48%	85%	54%	85%	56%	85%	61%	85%	61%	85%	62%	85%
TRICKLE IRRIGATION														
Replace under tree, solid set sprinkler	80%	85%	80%	85%	80%	85%	80%	85%	80%	85%	80%	85%	80%	85%
TRICKLE IRRIGATION														
Replace hand move sprinkler	73%	85%	73%	85%	73%	85%	73%	85%	73%	85%	73%	85%	73%	85%
CENTER PIVOTS														
Replace surface irrigation	43%	80%	48%	80%	54%	80%	56%	80%	61%	80%	61%	80%	62%	80%
CENTER PIVOTS														
Replace wheel lines	73%	80%	73%	80%	73%	80%	73%	80%	73%	80%	73%	80%	73%	80%
OTHER														

Seek assistance from your Area Engineer. Document procedures and source of values.

* List crop, multiple crops each calendar year, or crops in a typical rotation. If there is a permanent crop change, only list the new crop.

** Used here as an approximation of the net water requirement. Effective precipitation or salt leaching and other beneficials water uses are not accounted for. For crops in rotation, calculate a weighted average ETc for a rotation cycle. If there is a permanent crop change, use the ETc of the new crop. Include cover crop ETc if applicable.

*** For estimating water savings associated with the EQIP program. These values can be used to represent cost-share applicant conditions. For surface irrigation, values apply to systems on uniform slopes

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